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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/820,640 | 03/30/2001 | Tsutomu Yamazaki | 018775-823 | 3564 |

7590

03/23/2004

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| EXAMINER |
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LU, TOM Y

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2621

DATE MAILED: 03/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/820,640

Applicant(s)

YAMAZAKI, TSUTOMU

Examiner

Tom Y Lu

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

- a. Referring to Claim 1, the examiner fails to understand functionality of the second converter, "which converts bit map data of pixels in the input bit map image data around the line image of the line image region based on the bit map data of pixels around the line image region". The claim language appears to be circular about what the bit map data is converted to. It seems the claim limitations directed to bit map data around the vector data as vaguely described in the specification, pages 8-11. However, the examiner does not understand the vector table in page 8 and figures 5-11, which appears applicant also in figure 3 teaches embedding pixels in the approximation region with regard to the functionality of the second converter. Nonetheless, the figures 5-11 seem showing a thinning process rather than an embedding process, and no data seems to be embedded. Further explanation with regard to the second converter is advised.

Art Unit: 2621

- b. Claims 2-7 are rejected as being dependent upon Claim 1.
- c. Claims 8-9 are rejected for the same reason given in Claim 1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Hiroyuki et al (Japanese Publication Number 05-020495, a copy of translation is attached).

- a. Referring to Claim 1, Hiroyuki discloses a first converter which extracts a line image region in input bit map image data and converts the line image to vector data (a straight line, the polygonal line and a curve in paragraph [0039] are the claimed “line image”; graphic data of representation points are the claimed “vector data”; image data read in paragraph [0021] is the claimed “bit map image data”); a second converter which converts bit map data of pixels in the input bit map image data around the line image of the line image region based on the bit map data of pixels around the line image region (paragraph 0058], Hiroyuki teaches the image data, which is bit map data herein, around the line image data as shown in figure 11 remains as it is); and a composer which composes the vector data of the line image obtained by said first converter and the bit map data converted by said second converter (paragraph [0002], Hiroyuki teaches after each conversion, the vector data and the bit map data are re-compounded).

- b. Referring to Claim 2, Hiroyuki discloses further comprising a character recognizer which recognizes characters in the input bit map data and converts the recognized characters to character codes, wherein said composer composes character data based on the character codes with the vector data and the bit map data (paragraph [0046]).
- c. Referring to Claim 3, Hiroyuki discloses wherein said second converter selects pixel data of a pixel according to a side wherein the pixel exists relative to the line image defined by the vector data (paragraph [0039], approximation function, and paragraph [0033], thinning process teaches selecting the pixel exists relative to the line image).
- d. Referring to Claim 4, Hiroyuki discloses wherein the vector data obtained by said first converter and the bit map data converted by said converter are stored separately in a storage device, and said composer composes the bit map data and the vector data stored in the storage device (paragraphs [0039] and [0058], Hiroyuki teaches the vector data and the bit map data are stored separately in PMEM3 or IMEM4).
- e. Referring to Claim 5, Hiroyuki discloses wherein the pixels around the line image region are pixels far from the line image by a predetermined distance (paragraphs [0058] and [0033], thinning process).
- f. Referring to Claim 6, Hiroyuki discloses wherein the distance is along a direction perpendicular to the line image (paragraph [0033]).

- g. Referring to Claim 7, Hiroyuki discloses wherein said image processor further comprises an image reader device which reads a document and provides the input bit map data of the document to said first and second converters (paragraph [0021]).
- h. With regard to Claim 8, all the limitations are addressed in Claim 1.
- i. With regard to Claim 9, the only difference between Claim 1 and Claim 9 is Claim 9 calls for additional feature of a computer readable storage medium, Hiroyuki teaches using a computer to implement his system, which inherently contains such storage medium.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Luther et al, U.S. Patent No. 6,005,680, see columns 7-8, 10-11 and 13-14.


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Y Lu whose telephone number is (703) 306-4057. The examiner can normally be reached on 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo H Boudreau can be reached on (703) 305-4706. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tom Y. Lu



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